

Koch, Kristine

From: James McKenna <jim.mckenna@verdantllc.com>
Sent: Wednesday, November 05, 2014 8:06 PM
To: Koch, Kristine
Subject: RE: Manganese memo
Attachments: Hardness-based Mn Criterion Memo_5 November 2014.pdf

Kristine,

Attached please find a revised manganese memo that incorporates the changes you requested in your email dated November 4, 2014. In particular, Windward recalculated the Acute-to-Chronic Ratios (ACRs) per your instruction.

It is important to note that EPA requested that the MATC be used in lieu of EC20s, which may be calculated as the geometric mean of the NOEC and LOEC or as the geometric mean of the NOEC and EC20 if a corresponding LOEC was unavailable. In other cases EPA supports the use of chronic EC20s for AWQC derivation, including their use in deriving ACRs (EPA 2013). For the Lasier et al. (2000) and Biesinger and Christensen (1972) studies, the EC25 and EC16 values were defined as the MATC because neither a NOEC nor a LOEC were available. Therefore, it is not so much a case of using the "correct derivation for the final ACR" as stated in your email, but rather a professional judgment as to what approach is utilized.

Please contact me or John if you have any questions. Thanks, Jim.

From: Koch, Kristine [mailto:Koch.Kristine@epa.gov]

Sent: Tuesday, November 4, 2014 1:41 PM

To: John Toll

Cc: Shephard, Burt; Sheldrake, Sean; James McKenna; Bob Wyatt (rjw@nwnatural.com); Jennifer Worenets (jworonets@anchorqea.com); David DeForest; Alex Liverman (liverman.alex@deq.state.or.us); Allen, Elizabeth; Audie Huber (audiehuber@ctuir.com); Blischke, Eric; Bob Dexter; Brian Cunningham (cunningham@gorge.net); callie@ridolfi.com; Coffey, Scott; Conley, Alanna; Erin Madden (erin.madden@gmail.com); Fuentes, Rene; Gabriel Moses ((b) (6)); Gail Fricano (gfricano@indecon.com); Genevieve Angle (Genevieve.Angle@noaa.gov); Hagerman, Paul; Holly Partridge (Holly.Partridge@grandronde.org); JD Williams (jd@williamsjohnsonlaw.com); Jeanette Mullin (mullinjm@cdmsmith.com); peterson.Jennifer@deq.state.or.us; Jeremy_Buck@fws.gov; Julie Weis (jweis@hk-law.com); Matt McClincy (mcclincy.matt@deq.state.or.us); Michael.karnosh@grandronde.org; poulsen.mike@deq.state.or.us; Muza, Richard; rdelvecchio@indecon.com DelVecchio; Rita Cabral (rcabral@indecon.com); Robert.Neely@noaa.gov; rose@yakamafish-nsn.gov; Ryan Sudbury (Ryan.Sudbury@grandronde.org); Sheldrake, Sean; Shephard, Burt; Todd King (KingTW@cdmsmith.com); tomd@ctsi.nsn.us; Tom Gainer (gainer.tom@deq.state.or.us)
Subject: RE: Manganese memo

John,

Burt has reviewed the memo and there is still a small problem with the final acute-chronic ratio. It seems that Windward fixed some but not all of the ACRs. The attached spreadsheet is the correct derivation for the final ACR (= 5.267) as opposed to the final ACR = 4.947 in your October 29, 2014 draft memo. Although this is not a huge change, given the scrutiny ODEQ's water program and others are likely to give this it needs to be corrected.

What specifically needs to be corrected is calculating the ACR as the acute value by the MATC, not dividing the ACR by the EC20 as Windward did in some but not all cases. The MATC is the geometric mean of the chronic value and the chronic NOEC, where the chronic value could be a LOEC, EC20 or IC25, depending on what information and statistical tests or statistical data reduction is available in the individual studies reviewed.

Please include these revisions in the memo and resubmit for final approval.

Thanks,

Kristine Koch
Remedial Project Manager
USEPA, Office of Environmental Cleanup

U. S. Environmental Protection Agency
Region 10
1200 Sixth Avenue, Suite 900, M/S ECL-115
Seattle, Washington 98101-3140

(206)553-6705
(206)553-0124 (fax)
1-800-424-4372 extension 6705 (M-F, 8-4 Pacific Time, only)

From: John Toll [mailto:JohnT@windwardenv.com]
Sent: Wednesday, October 29, 2014 4:31 PM
To: Koch, Kristine
Cc: Shephard, Burt; Sheldrake, Sean; James McKenna; Bob Wyatt (rjw@nwnatural.com); Jennifer Worenets (jworonets@anchorage.com); David DeForest
Subject: Manganese memo

Hi Kristine. As you know we've been working with Burt Shephard over the past week or so to answer EPA's questions and incorporate its recommendations into the memo "Derivation of Proposed Manganese PRG to Replace the Suter and Tsao (1996) Tier II Value in the Portland Harbor Feasibility Study." We addressed the questions, incorporated the recommendations, and discussed the revisions with Burt before resubmitting the memo. Having finished that peer review process, the revised manganese memo is attached for your review.

Best regards,

John

John Toll, Ph.D.
Partner, Windward Environmental LLC
200 West Mercer Street, Suite 401 | Seattle, WA 98119
206.812.5433 (o) | 206.913.3292 (c)
john.toll@windwardenv.com | www.windwardenv.com